

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories Inc.
TestAmerica Seattle
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Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Project ID: 580-17435-1
Client Job ID: Rainier Commons

For:
Clean Harbors Environmental Services Inc
19320 Des Moines Memorial Dr
Bldg D, Suite 400
Seatac, Washington 98148

Attn: Shawn Estrada

Pamela R. Johnson

Authorized for release by:
1/26/2010 4:38 PM

Pam Johnson
Project Manager I
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Qualifier Definition/Glossary

Client: Clean Harbors Environmental Services Inc
Project/Site: Rainier Commons

TestAmerica Job ID: 580-17435-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	RPD of the MS and MSD exceeds the control limits

Glossary

Glossary	Glossary Description
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis.

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Job Narrative
580-17435-1

Comments

No additional comments.

Receipt

All samples were received in good condition within temperature requirements.

GC Semi VOA - Method 8082

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 580-57240 were outside of the control limits in analytical batch 580-57430. The associated laboratory control sample (LCS) recovery met acceptance criteria; therefore the analytes outside of the control limits were "F" flagged and the results were reported. This failure was suspected to have been caused by high target analytes and overlapping Aroclor peaks.

The following sample contained more than one Aroclor component: 580-17435-1. Results are presented as estimates due to shared peaks. Obvious overlapping peaks were deleted to minimize potential high bias.

The capping continuing calibration verification (CCV 57430/ 63) analyzed in analytical batch 580-57430 exceeded the lower control limits for Aroclor PCB-1260. The associated sample (17435-1) was analyzed twice with similar capping CCV results; therefore sample matrix is suspected to have contributed to this failure. The results were reported from the second analysis.

No other analytical or quality issues were noted.

General Chemistry

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.



Analytical Data

Client: Clean Harbors Environmental Services Inc
Project/Site: Rainier Commons

TestAmerica Job ID: 580-17435-1

Client Sample ID: RC 180110

Lab Sample ID: 580-17435-1

Date Collected: 01/18/10 00:00

Matrix: Solid

Date Received: 01/18/10 10:30

Percent Solids: 95.0

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.020		mg/Kg	✖	01/20/10 10:09	01/25/10 23:46	2
PCB-1221	ND		0.020		mg/Kg	✖	01/20/10 10:09	01/25/10 23:46	2
PCB-1232	ND		0.020		mg/Kg	✖	01/20/10 10:09	01/25/10 23:46	2
PCB-1242	ND		0.020		mg/Kg	✖	01/20/10 10:09	01/25/10 23:46	2
PCB-1248	ND		0.020		mg/Kg	✖	01/20/10 10:09	01/25/10 23:46	2
PCB-1254	1.0		0.020		mg/Kg	✖	01/20/10 10:09	01/25/10 23:46	2
PCB-1260	0.69		0.020		mg/Kg	✖	01/20/10 10:09	01/25/10 23:46	2

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	75		45 - 155	01/20/10 10:09	01/25/10 23:46	2
DCB Decachlorobiphenyl	82		60 - 125	01/20/10 10:09	01/25/10 23:46	2

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10		%			01/19/10 08:59	1
Percent Moisture	5.0		0.10		%			01/19/10 08:59	1

Quality Control Data

Client: Clean Harbors Environmental Services Inc
Project/Site: Rainier Commons

TestAmerica Job ID: 580-17435-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 580-57240/1-A

Matrix: Solid

Analysis Batch: 57430

Client Sample ID: MB 580-57240/1-A

Prep Type: Total/NA

Prep Batch: 57240

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.010		mg/Kg		01/20/10 10:09	01/25/10 23:16	1
PCB-1221	ND		0.010		mg/Kg		01/20/10 10:09	01/25/10 23:16	1
PCB-1232	ND		0.010		mg/Kg		01/20/10 10:09	01/25/10 23:16	1
PCB-1242	ND		0.010		mg/Kg		01/20/10 10:09	01/25/10 23:16	1
PCB-1248	ND		0.010		mg/Kg		01/20/10 10:09	01/25/10 23:16	1
PCB-1254	ND		0.010		mg/Kg		01/20/10 10:09	01/25/10 23:16	1
PCB-1260	ND		0.010		mg/Kg		01/20/10 10:09	01/25/10 23:16	1
Surrogate	% Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	82		45 - 155				01/20/10 10:09	01/25/10 23:16	1
DCB Decachlorobiphenyl	91		60 - 125				01/20/10 10:09	01/25/10 23:16	1

Lab Sample ID: LCS 580-57240/2-A

Matrix: Solid

Analysis Batch: 57430

Client Sample ID: LCS 580-57240/2-A

Prep Type: Total/NA

Prep Batch: 57240

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	% Rec.	% Rec. Limits
PCB-1016	0.100	0.0966		mg/Kg	97	40 - 140
PCB-1260	0.100	0.120		mg/Kg	120	60 - 130
Surrogate	% Recovery	LCS Qualifier	Limits			
Tetrachloro-m-xylene	88		45 - 155			
DCB Decachlorobiphenyl	98		60 - 125			

Lab Sample ID: 580-17435-A-1-B MS

Matrix: Solid

Analysis Batch: 57430

Client Sample ID: 580-17435-A-1-B MS

Prep Type: Total/NA

Prep Batch: 57240

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	% Rec.	% Rec. Limits
PCB-1016			0.101	0.100		mg/Kg	100	40 - 140
PCB-1260			0.101	0.860	4	mg/Kg	173	60 - 130
Surrogate	% Recovery	MS Qualifier	Limits					
Tetrachloro-m-xylene	76		45 - 155					
DCB Decachlorobiphenyl	78		60 - 125					

Lab Sample ID: 580-17435-A-1-C MSD

Matrix: Solid

Analysis Batch: 57430

Client Sample ID: 580-17435-A-1-C MSD

Prep Type: Total/NA

Prep Batch: 57240

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	% Rec.	% Rec. Limits	RPD	Limit
PCB-1016			0.0985	0.109		mg/Kg	111	40 - 140	8	20
PCB-1260			0.0985	1.94	4 F	mg/Kg	1270	60 - 130	77	20
Surrogate	% Recovery	MSD Qualifier	Limits							
Tetrachloro-m-xylene	76		45 - 155							
DCB Decachlorobiphenyl	80		60 - 125							

Lab Chronicle

Client: Clean Harbors Environmental Services Inc
Project/Site: Rainier Commons

TestAmerica Job ID: 580-17435-1

Client Sample ID: RC 180110

Lab Sample ID: 580-17435-1

Date Collected: 01/18/10 00:00

Matrix: Solid

Date Received: 01/18/10 10:30

Percent Solids: 95.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3550B		2	57240	01/20/10 10:09	KKJ	TestAmerica Seattle
Total/NA	Analysis	8082		2	57430	01/25/10 23:46	SLC	TestAmerica Seattle
Total/NA	Analysis	Moisture		1	57176	01/19/10 08:59	KKJ	TestAmerica Seattle



Certification Summary

Client: Clean Harbors Environmental Services Inc
Project/Site: Rainier Commons

TestAmerica Job ID: 580-17435-1

Laboratory	Program	Authority	EPA Region	Certification ID	Expiration Date
TestAmerica Seattle	DoD ELAP	L-A-B	0	L2236	01/19/13
TestAmerica Seattle	ISO/IEC 17025	L-A-B	0	L2236	01/19/13
TestAmerica Seattle	NELAC Secondary AB	California	9	1115CA	01/31/10
TestAmerica Seattle	State Program	Alaska	10	UST-022	03/04/10
TestAmerica Seattle	State Program	Washington	10	C1226	02/17/10
TestAmerica Seattle	USDA			P330-08-00099	05/22/11

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: Clean Harbors Environmental Services Inc
Project/Site: Rainier Commons

TestAmerica Job ID: 580-17435-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL TAC
Moisture	Percent Moisture	EPA	TAL TAC

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL TAC = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

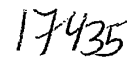
Sample Summary

Client: Clean Harbors Environmental Services Inc
Project/Site: Rainier Commons

TestAmerica Job ID: 580-17435-1

Lab Sample ID	Client Sample ID	Matrix	Sampled	Received
580-17435-1	RC 180110	Solid	01/18/10 00:00	01/18/10 10:30



☐ Other

OFFICE COPY

IR=17.3 client drops



RCLLC 0001538

Login Sample Receipt Check List

Client: Clean Harbors Environmental Services Inc

Job Number: 580-17435-1

Login Number: 17435

List Source: TestAmerica Tacoma

Creator: Blankinship, Tom

List Number: 1

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	hand del
Cooler Temperature is acceptable.	True	received same day as sampled
Cooler Temperature is recorded.	True	IR Gun 17.3c
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

